

is used as neutralizing agent for pendant carboxylic acid groups in dispersions of a polyurethane or a polyurethane-polyacrylate, whereafter the unsaturated monomers undergo in situ an addition polymerization,

wherein the aqueous dispersion of the anionic polyurethane is prepared by the steps of preparing an isocyanate functional anionic polyurethane prepolymer, optionally in the presence of vinylic monomers mixing the isocyanate terminated anionic polyurethane prepolymer with a tertiary-amino functional unsaturated monomer and optionally other vinylic monomers followed by dispersing of the obtained mixture into water, and chain extension of the polyurethane prepolymer with an active hydrogen compound during or after the dispersion in water, initiating radical polymerization of the vinylic monomers, including the tertiary amino functional unsaturated monomers.

2. (Amended) A process according to claim 1, in which the isocyanate terminated prepolymer is reacted with 0-100% of a stoichiometric amount of a hydroxy functional unsaturated monomer before the dispersion of water.

3. (Amended) A process according to claim 1, in which the tertiary amine functional acrylic oligomer or polymer is formed during the process by radical polymerization of tertiary amine functional unsaturated monomers.

4. (Amended) A process according to claim 1, in which the tertiary amine functional unsaturated monomers react together with other vinylic monomers during the radical polymerization to obtain a tertiary amine functional co-polymer.

5. (Amended) A process according to claim 1, wherein the tertiary amine functional unsaturated monomer is a dimethylaminoalkyl acrylate, a dialkylaminoalkyl methacrylate, a dialkylaminoalkoxy acrylate and/or a dialkyl-aminoalkoxy methacrylate.

6. (Amended) A process according to claim 1, wherein the tertiary amine functional unsaturated monomer is [preferably] dimethylaminoethyl acrylate, dimethylaminoethyl methacrylate, diethylaminoethyl acrylate, diethylaminoethyl methacrylate, or 2-(diethylamino) ethanol vinyl ether.

7. (Amended) A process according to claim 1, wherein the tertiary amine functional unsaturated monomer is present in a ratio to the anionic residues to be neutralized in the polyurethane prepolymer from between approximately 0.3 to 2.

8. (Amended) A process according to claim 1, wherein the anionic group in the polyurethane or in the polyurethane/polyacrylate hybrid is a carboxyl, a sulphonic, a sulphate and/or a phosphate group.

9. (Amended) A process according to claim 1, wherein the amount of carboxylic acid functions in the isocyanate functional polyurethane prepolymer is from approximately 1 to 15%.

10. (Amended) A process according to claim 2 wherein the hydroxy functional unsaturated monomer is a hydroxy functional acrylate or methacrylate selected from the group consisting of hydroxyethyl acrylate, hydroxyethyl methacrylate, hydroxy-propyl acrylate, hydroxypropyl methacrylate, hydroxybutyl acrylate, hydroxybutyl methacrylate, and hydroxy-polyester acrylate or methacrylate.

11. (Amended) A process according to claim 1, wherein the other vinylic monomers are selected from acrylic or methacrylic alkyl esters.

12. (Amended) A process according to claim 11, wherein the other vinylic monomers are present in an amount of approximately 0 to 90%.

13. (Amended) A process according to claim 1, wherein the polyurethane and/or the acrylic monomers contain additional functional groups selected from the group consisting of polyalkoxy functions with a large concentration of ethoxy functions, tertiary amine or quaternary amine functions, perfluor functions, incorporated silicon functions, hydrazide functions or hydrazone functions, ketone, acetoacetate, hydroxy, methylol, amide, glycidyl, and ureido or aldehyde functions.

14. (Amended) A process according to claim 1, wherein a conventional non-ionic, anionic or cationic surfactant is applied during the dispersion of the prepolymer solution in water.

15. (Amended) A dispersion prepared by the process of claim 1.

16. (Amended) A coating or film obtained from a dispersion prepared by the process of claim 1.